2016

Police Bias in the Enforcement of Drug Crimes: Evidence from Low Priority Laws

Gregory DeAngelo
West Virginia University, gregory.deangelo@mail.wvu.edu

Kai Gittings
Texas Tech University

Amanda Ross
West Virginia University

Annie Walker
University of Colorado Denver

Department of Economics

Working Paper Series

Police Bias in the Enforcement of Drug Crimes: Evidence from Low Priority Laws

Gregory DeAngelo

R. Kai Gittings

Amanda Ross

Annie Walker

Working Paper No. 16-01

This paper can be found at the College of Business and Economics Working Paper Series homepage:

http://be.wvu.edu/phd_economics/working-papers.htm

Police Bias in the Enforcement of Drug Crimes: Evidence from Low Priority Laws

Gregory DeAngelo
Department of Economics
West Virginia University
Phone: 304-293-4039
Email: gregory.deangelo@mail.wvu.edu

R. Kaj Gittings
Department of Economics
Texas Tech University
Lubbock, TX 79803
Phone: 806-834-2175
Email: kaj.gittings@ttu.edu

Amanda Ross
Department of Economics
West Virginia University
Morgantown, WV 26506
Phone: 304-293-7869
Email: amanda.ross@mail.wvu.edu

Annie Walker
Department of Economics
University of Colorado, Denver
1380 Lawrence Street, Suite 460E
Denver, CO 80204
Phone: 303-315-2030
Email: anne.w.walker@ucdenver.edu

Abstract

We consider the impact of adoption of a low priority initiative in some jurisdictions within Los Angeles County on police behavior. Low priority initiatives instruct police to make the enforcement of low level marijuana possession offenses their "lowest priority." Using detailed data from the Los Angeles County Sheriff's Department and a difference-in-differences strategy, we show that the mandate resulted in a lower arrest rate for misdemeanor marijuana possession in adopting areas. However, the lower relative arrest rate is driven by a spike in the arrest rate in areas not affected by the mandate rather than a reduction in adopting areas.

I. Introduction

Since the 1990s, there have been ongoing drug crime reforms by state and local jurisdictions throughout the U.S. Several of these changes have focused on marijuana laws, typically driven by changing public perceptions regarding marijuana. In 1996, California became the first state to allow medical cannabis, with 22 more states and Washington, DC legalizing as of 2015.[1] In 2014, Congress "quietly" ended the federal ban on medical cannabis.[2] Even more dramatically, in 2012 Colorado and Washington voted to legalize recreational cannabis use and Alaska, Oregon, and Washington, DC followed suit in 2014.[3] While public perceptions may be changing towards marijuana, and legislative changes and voter initiatives may be telling the criminal justice system to ignore these offenses, this does not necessarily mean that police officers, prosecutors, and judges are following the wishes of lawmakers and the public (Tonry, 1996).

In this paper, we look at the impact of the adoption of a low priority initiative on police behavior in Los Angeles County. Low priority initiatives were local mandates that stated police should make the enforcement of minor marijuana offenses the "lowest enforcement priority." Within Los Angeles County, two jurisdictions adopted such initiatives - Santa Monica and West Hollywood. While local policy makers and voters may want such a policy in place, this does not necessarily mean police officers/chiefs do not have their own views on marijuana, or other biases, that may cause them to act in contrast to the views of the public. We therefore examine if, after the adoption of a low

[1] http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881
[2] http://www.latimes.com/nation/la-na-medical-pot-20141216-story.html
[3] http://www.drugpolicy.org/marijuana-legalization-and-regulation

priority initiative, there is differential enforcement of police agencies across different types of marijuana crimes, across areas within their jurisdiction, or across race.

Our research relates to a growing literature that examines various mechanisms that may affect police behavior. Several papers have looked at how changing the incentives of police through the War on Drugs affected how police allocated their time, and the impact of this reallocation of time on other types of crime (Benson and Rasmussen, 1991; Benson et. al., 1992; Benson, et al., 1994; Benson et al., 1995; Benson et al., 1998; Sollars et al., 1994).[4] In addition, there are differences in the response of law enforcement based on the experience of the police officers (DeAngelo and Owens, 2015).[5] There is also a growing literature on how police behavior may respond to changes in the economic situation of a county, arguing that when a local area is struggling, police officers issue more traffic tickets in order to generate revenues (DeAngelo and Hanson, 2014; Makowsky and Stratmann, 2009; Makowsky and Stratmann, 2011).

To conduct our analysis, we use a unique data set on arrests obtained from the Los Angeles Sheriff's Department (LASD). This data set gives us the unique opportunity to study various mechanisms that may be in play regarding how these policies affected police behavior. First, the LASD office has jurisdiction throughout the county, covering multiple municipalities. However, only two jurisdictions in LA County enacted low priority laws, West Hollywood and Santa Monica (but Santa Monica has its own police

[4] Ross and Walker (2015) found that police officers in the state of California followed the mandate and arrested fewer individuals, but that there was no measurable deterrent effect of the initiative on other types of felony crimes.

[5] Leaver (2009) and DeAngelo and McCannon (2015) develop game theoretical models showing the tradeoff of regulators/police officers between properly applying the law, changing public perceptions, and societal norms and outcry related to the actions of a regulator. Lum and Nagin (2015) also discuss the role of citizen reactions to police behavior.

force and thus the LASD does not have primary patrol over this area). Therefore, while the LASD are responsible for patrolling the overwhelming majority of Los Angeles County, only one municipality within its purview passed a low priority law initiative. This allows us to see if the policy change caused officers to adjust their behavior in general throughout the county, or if they only adjusted their behavior in the sole adopting jurisdiction.

Furthermore, our data includes information on the race of the individual arrested. This allows us to see another dimension along which police officers could have changed their behavior by targeting a specific race. Specifically, we examine whether the relaxation of misdemeanor drug crime laws has a symmetric impact across races, or if a specific race (or group of races) are disproportionately impacted by these legal changes. In our analysis we focus specifically on white versus nonwhite individuals.

To determine the effect of low priority initiatives on police behavior, we rely on a difference-in-differences estimation strategy. We include reporting area fixed effects to control for unobservable heterogeneity of the locality, year-by-month fixed effects to control for period specific common shocks across units, as well as reporting area-specific linear time trends. We first estimate if the adoption of a low priority law affected the arrest behavior of local police officers. We find that adoption caused a reduction in arrests for misdemeanor marijuana offenses, but not felony offenses, consistent with the findings of Ross and Walker (2015). This result suggests that officers were heeding the mandate when adjusting their arrest behavior for only the relevant type of minor marijuana offenses.

However, a closer examination of the data reveals that police did not change their behavior in the manner that would be expected given the policy change. Specifically, we do not find that police reduced the number of arrests in West Hollywood. In fact, our data shows evidence that the arrest pattern was flat in West Hollywood over this period. However, we find that there is a sharp increase in the non-adopting jurisdictions after the implementation of low priority laws. There are several mechanisms we believe could be driving this result. First, police may be unhappy with the passage of the low priority initiative and react by increasing arrests in other areas. Alternatively, it could be that prior to the adoption of low priority laws, police were treating these offenses as a low priority, but the passage of the initiative served as a reminder to police that they should be arresting for these offenses, and hence increased arrests in other areas.[6]

Finally, we reexamine if there is a differential enforcement of the policy by police officers across race of the perpetrator, specifically white versus nonwhite individuals. We do not find that there was any change in the racial composition of the individuals arrested as a result of the adoption of a low priority law, suggesting that any racial bias police may have is not manifesting itself through the enforcement of these initiatives. Overall, our findings suggest that any bias that may be present is coming from a change in behavior across jurisdictions, not in a differential enforcement across races or a change in the enforcement of all types of drug crimes.

[6] One mechanism through which this could occur is if localities are running into budgetary problems, and the passage of this law brings light onto another type of offense that can be used to generate revenues. Such a result would be consistent with previous work examining the use of traffic citations by local police agencies to generate revenues during economic downturns (Makowsky and Stratmann, 2009; Makowsky and Stratmann, 2011).

The rest of the paper will proceed as follows. Section II provides background information, particularly on low priority initiatives and the nature of the LASD. Section III describes our data, while Section IV outlines our empirical strategy. Results are presented in Section V. We conclude and discuss policy implications in Section VI.

II. Low Priority Laws and the Los Angeles Sheriff's Department

Low priority initiatives mandate that minor marijuana possession offenses be the lowest enforcement priority for local law enforcement agencies. There are a few key components to low priority laws. First, the law only affects minor marijuana possession offenses. Felony drug crimes, including felony-level marijuana possession and distribution offenses, were not affected by the policy change. Second, the law only affected offenses where marijuana was intended for adult personal use. Possession or selling of marijuana to minors is not affected by low priority initiatives. Finally, the mandate was only intended to affect the private use of marijuana, so any offenses committed on public property were not affected.[7]

Within Los Angeles County there are multiple police jurisdictions - local police, city police, county police, and state police – that oversee the enforcement of laws. Our data includes only arrests made in Los Angeles County by the LASD, which covers approximately 79 percent of the geographic area in LA County. In LA County, Santa Monica and West Hollywood were the only municipalities that adopted low priority initiatives in our sample period. Santa Monica has its own police agency, therefore any arrests or crimes reported in this area will not appear in our data set. However, West

[7] Most of the initiatives also have some language regarding who was responsible for making sure the ordinance was enforced by the local police agency.

Hollywood contracts with LASD for police services and changes in policing behavior in this area due to the policy change will be present in our data. The city of West Hollywood has 22 reporting districts out of a total of 943 reporting districts in LA County.

This contractual relationship between the city of West Hollywood and the LASD for the provision of police services presents challenges to the implementation of the low priority law in West Hollywood for several reasons. First, for the LASD, complying with the West Hollywood resolution would mean changing their arrest behavior in one specific geographic area within their overall jurisdiction. We empirically test whether or not the LASD changed their behavior at all, if the policy change in West Hollywood caused them to alter their behavior selectively in the adopting jurisdiction, or if their behavior was altered uniformly throughout the county.

Second, the West Hollywood City Council has no authority to compel the LASD to comply with the low priority mandate. The low priority initiative passed by the City Council is a resolution, which unlike an ordinance, is not a law and is therefore not legally binding. The city council member who proposed the resolution acknowledged this, stating that the resolution should "send a message to law enforcement that they should focus on more serious crimes."[8]

Furthermore, the LA County Sheriff is an elected official who generally establishes his or her own priorities.[9] County commissioners often control police department budgeting decisions and therefore may have some indirect influence on the

[8] From San Diego Tribune: http://www.sandiegouniontribune.com/news/2006/jun/20/west-hollywood-to-consider-easing-enforcement-of/

[9] Throughout our sample period, the LA County Sheriff was Lee Baca, who was Sheriff from 1998 to 2014. Therefore, we have no concerns that a change in the Sheriff caused a change in the overall goals and policies of the LASD. See http://www.badgehistory.com/Sheriffs.html for a list of all LA Sheriffs.

sheriff's operations, but even they may lack the authority to determine the priorities of police. As stated by one city council member, it is unusual for a contracting city to specify which laws for police to enforce and which to ignore.[10] However, given the fact that the Sheriff is an elected official, he may choose to follow the resolution if he believes that such a law reflects the preferences of the electorate and will help him in his reelection efforts.

Nonetheless, the West Hollywood resolution includes a provision that attempts to ensure the police are following the decree; it directs the Public Safety Commission of the City of West Hollywood "to conduct annual reviews of Sheriff Department statistics related to enforcement activities related to marijuana offenses," and to present those findings to the City Council periodically.[11] In addition, if the LASD refuses to heed to mandate, the city of West Hollywood could discontinue its contract for law enforcement with the LASD and use another police department, or create their own. This possibility may also serve to incentivize the LASD to comply with the resolution, especially if their objective is to maximize their operating budget.

One question that frequently surrounds the implementation of low priority mandates is whether or not police departments are already deprioritizing low level marijuana offenses. If police are already considering enforcement of marijuana misdemeanors as a low priority, then we would see no effect of the law on arresting behavior of police. This may have been the case in West Hollywood; as a sheriff deputy who works in West Hollywood stated that officers "use their own judgment in small-time

[10] From LA Times: http://articles.latimes.com/2006/jun/20/local/me-pot20
[11] The resolution can be found at: http://www.weho.org/Home/ShowDocument?id=826

pot cases."[12] Ross and Walker (2015) found evidence that adopting jurisdictions in California did have fewer arrests for misdemeanor marijuana offenses, but the reductions were small and estimates suggest only approximately 300 additional hours of time were created through the reduction in arrests.

However, if small marijuana possession offenses were already a low priority, so low that officers did not consider arresting for this, the passage of the low priority initiative in West Hollywood may have served as a reminder to police to arrest individuals for these offenses. An individual found with less than 28.5 grams of marijuana is subject to a fine only of approximately $100, with fees not to exceed $485.[13] Possession offenses above this amount, that are misdemeanor level offenses, carry a maximum fine of $500 and six months in jail.[14] Thus, it is possible that this policy may have an unintended effect on arrest behavior in other non-adopting jurisdictions as it reminded the LASD that these possession offenses could be used to generate revenues through the fines.

A final challenge to the implementation of the low priority initiative in West Hollywood is that, like many other low priority initiatives, the West Hollywood resolution does not specify limits to the amounts of marijuana that should be exempted. It merely states that "small amounts" should be ignored. This ambiguity may diminish the effectiveness of the resolution because of the difficulty it creates for police in implementing the mandate, and it may also allow police to differentially enforce the low

[12] From LA Times: http://articles.latimes.com/2006/jun/20/local/me-pot20
[13] In 2011, California changed its laws so that possession of less than 28.5 grams of cannabis was considered an infraction, not a misdemeanor. However, during our entire sample period, this was classified as a misdemeanor and therefore this change should not affect our results.
[14] http://www.canorml.org/camjlaws.html

priority resolution, particularly across identifying features of perpetrators (e.g. race). Our arrest data provided by the LASD separately identifies misdemeanor arrests for marijuana possession and arrests for felony possession, distribution or intent to sell marijuana. We will estimate the effect of the low priority mandate separately for these two types of marijuana arrests with the belief that the policy should only affect misdemeanor crimes.

III. Data

Our primary data consist of the universe of arrest records from the LASD between 2000 and 2007, which we obtained through a research agreement.[15] Each arrest record identifies the type of offense, the geographic location of the arrest (reporting district) and a time stamp for when the arrest took place. Arrests appear in 943 reporting districts in Los Angeles County, of which 22 reporting districts lie within the city of West Hollywood. The reporting districts within West Hollywood will be our treated units for the empirical analysis. The low priority resolution in West Hollywood was passed in June 2006 and was to take effect immediately. Therefore, our treatment time period pertains to any arrest made beginning July 1, 2006.

We are interested in identifying changes in the likelihood of a marijuana arrest before and after the low priority mandate took effect. The arrest records differentially identify misdemeanor marijuana possession from felony marijuana possession. We will treat these two types of marijuana arrests as different outcomes under the premise that the low priority mandate should have been enforced on minor possession of marijuana offenses (i.e. misdemeanor offenses) but not felony possession.

[15] The LASD has decided not to release any extracts for more recent years.

Summary statistics

Table 1 presents the summary statistics of the variables used in our analysis for the entire 2000-2007 time period. Panel A shows the means and standard deviations of the variables for the full sample arrest records as well as separately for reporting districts affected by the low priority mandate and reporting districts not affected by the low priority mandate. Each observation in the data is an individual arrest record, of which there are more than 2.5 million. There are 52,672 total arrests in low priority reporting districts and 2,491,622 arrests in reporting districts not affected by the low priority mandate. The variable nonwhite is a binary indicator (=1) if the arrested individual was identified as a race other than white. The race identifier was missing for a large number of arrests. Of the 725,925 arrest records that identified the race of the individual arrested, 78.9% were nonwhite.[16] However, in West Hollywood where the reporting districts were subjected to the low priority initiative, less than half of arrests (46.9%) pertained to nonwhite individuals.

The variable "Low Priority Law" is an indicator (=1) for reporting districts affected by the mandate. The first column in Panel A shows that 2.1% of all arrests came from low priority reporting districts. The variables "Misdemeanor Marijuana" and "Felony Marijuana" are also binary indicators for whether the arrest was for misdemeanor marijuana possession offense or felony marijuana possession offense, respectively. Of all arrests in the data, 1.8% were for misdemeanor marijuana possession and 0.3% were for felony marijuana possession. The fraction of arrests for misdemeanor

[16] We will address the missing data for the race identifiers in our empirical analysis.

marijuana possession was twice as high in reporting districts with no low priority initiative and the fraction of felony marijuana arrests were three times as high in reporting districts with no low priority initiative.

One of our objectives is to test whether the LASD implemented the low priority initiative differentially across racial groups. Panel B shows the fraction of misdemeanor and felony marijuana arrests separately by white and nonwhite individuals. Across all reporting districts, the fraction of arrests for misdemeanor marijuana possession is about 5% for both white and nonwhite individuals. The fraction of arrests for felony marijuana possession is 0.6% and 0.8% for white and nonwhite individuals, respectively.

Unconditional Difference-in-Differences

Table 2 shows the unconditional average marijuana arrest rate in low priority reporting districts and reporting districts without a low priority mandate, both before and after the mandate had passed. Panel A shows the difference-in-differences outcomes for misdemeanor marijuana arrests and Panel B shows the outcomes for felony marijuana arrests. The top portion of each panel displays the average fraction of arrests, with standard deviations in parentheses, for each group both before and after the mandate took effect. Directly below is the average difference for each group pre- and post-treatment along with standard errors (in brackets) for the t-test that the difference is equal to zero, assuming unequal variances. The unconditional difference-in-differences estimate is also presented with standard errors (in brackets) for the test that the difference-in-differences estimate is equal to zero.

In Panel A, the fraction of misdemeanor marijuana arrests is higher after the mandate is passed in both low priority and non-low priority reporting districts, but the increase is only statistically different from zero in reporting districts that were not subjected to the low priority law. The difference-in-differences estimate is -0.009 and is statistically significant at the 1% level. While the estimate is small in size, the baseline fraction of misdemeanor marijuana arrests for low priority districts from column 2 of Table 1 is only 0.009. This suggests that the likelihood of arrest for misdemeanor marijuana possession was significantly reduced after the low priority law took effect.

Panel B of Table 2 shows that the rate of felony marijuana arrests increased in all reporting districts after the mandate was passed, but as with misdemeanor marijuana possession, the increased arrest rate is only statistically different from zero in non-low priority reporting districts. Here, the unconditional difference-in-differences estimate is not statistically different from zero.

Table 2 suggests that there may be underlying differences in trends regarding the likelihood of arrest for marijuana possession. In order to visually inspect the trends in marijuana arrest, we aggregated the “Misdemeanor Marijuana” binary variable to monthly observations pertaining to reporting districts that were subjected to the low priority initiative and reporting districts that were not. This creates two time series where each observation reflects the fraction of all arrests that were for misdemeanor marijuana possession in a particular month. These series are plotted over the sample period in Figure 1 and Figure 2.

Figure 1 shows the series for reporting districts subject to the low priority initiative and Figure 2 displays the series for reporting districts that were not subject to

the low priority initiative. In both figures, the dashed line identifies the average misdemeanor marijuana arrest rate, the solid lines are 95% confidence bands, and the vertical line identifies the month in which the low priority initiative took effect. The difference in the two series is striking. While there is variation in the arrest rate over time in both figures, both follow a similar trend before West Hollywood implemented a low priority initiative but there is a strong upward spike following adoption in non-adopting districts in Figure 2 and only a small, perhaps insignificant, upward trend in adopting districts in Figure 1 following the initiative.

These figures visually confirm that there was a significant increase in misdemeanor marijuana arrests following the law in reporting districts that were not subjected to the low priority initiative. These trends may foreshadow our main results from the regression analysis in that the reduction in the likelihood of misdemeanor marijuana arrest from our regression estimates is not due to fewer arrests in adopting jurisdictions, but to a slower rate of growth in the arrest rate in comparison to other, non-adopting reporting districts.

IV. Empirical Specification

Our identification strategy relies on a standard difference-in-differences approach that accounts for a large amount of unobserved heterogeneity in a panel data setting. To estimate the effect of the low priority initiative on arrests, our most saturated and conservative model has the following specification:

$$Y_{ait} = \alpha + \beta LPL_{ait} + \gamma Post_{ait} + \theta LPL_{ait} * Post_{ait} + \mu_i + \delta_t + \tau\mu_i + \varepsilon_{ait} \qquad (1)$$

where $Y_{ait} \in \{0,1\}$ is a binary indicator for the type of arrest made (e.g., misdemeanor marijuana arrest, felony marijuana arrest) for arrest record *a* in reporting district *i* and period *t*. The data for the outcome variable is comprised of the entire population of arrest records made by the LASD for all types of crimes. Therefore, the model should be interpreted as predicting the likelihood of a particular type of arrest relative to all possible arrests.

Our specification is therefore simply a linear probability model with a binary dependent variable for the type of arrest that was made. Presumably, it would be desirable to express the dependent variable as a rate. However, this is not feasible given the structure of our data. Constructing the dependent variable as an arrest rate as the number of arrests per population in a reporting district is not possible because population data by reporting district is not available. It is also not possible to calculate a clearance rate (arrests/number of reported crimes) because data on reported criminal possession of marijuana does not exist.

Our specification controls for time invariant unobserved heterogeneity specific to each reporting district with reporting district fixed effects, μ_i. The time period indexed by *t* is a year-month combination for which there are 96 months between 2000 and 2007. Year-month fixed effects, denoted by δ_t, capture period-specific shocks that are common to all reporting districts. Reporting district-specific linear time trends are denoted as $\tau\mu_i$. The standard errors, ε_{ait}, are clustered by reporting district. $LPL_{ait} \in \{0,1\}$ is an indicator that identifies whether a reporting district is subject to the low priority initiative and $Post_{ait} \in \{0,1\}$ is an indicator that identifies the post-treatment period. Our coefficient of

interest is θ, which is the standard difference-in-differences estimator in in this framework.

We are also interested in whether the low priority law was differentially enforced across race. We amend Equation (1) by including an indicator NW_{ait} for whether the suspect is recorded as being nonwhite ($NW_{ait} = 1$) or white ($NW_{ait} = 0$).[17] This indicator is then interacted with the components of our model that produces the difference-in-differences estimator. The resulting model takes the following form:

$$Y_{ait} = \alpha + \beta LPL_{ait} + \gamma Post_{ait} + \theta LPL_{ait} * Post_{ait} + \Pi_1 NW_{ait} + \Pi_2 LPL_{ait} * NW_{ait} + \Pi_3 Post_{ait} * NW_{ait} + \Pi_4 LPL_{ait} * Post_{ait} * NW_{ait} + \mu_i + \delta_t + \tau\mu_i + \varepsilon_{ait} \quad (2)$$

A nonzero estimate of $\Pi_4$would indicate that the low priority law was implemented differentially for white versus nonwhite suspects.

V. **Results**

Impact of Low Priority Laws on Arrest Outcomes

Tables 3 and 4 present our main results for the effect of low priority laws on the arrest behavior of officers of the LASD. The tables are identically structured but the dependent variable in Table 3 is an indicator for whether the arrest was for misdemeanor marijuana possession and the dependent variable in Table 4 is an indicator for whether the arrest was for felony marijuana possession. The columns of the tables are parameter estimates from variations of the model specified in Equation (1), where each column

[17] We have also estimated models that differentiate Black, White, Hispanic, Asian and Other but find no differences across these groups. Therefore, we pool all nonwhite individuals for this analysis.

accounts for different components of the unobserved heterogeneity. Column (1) includes only reporting district fixed effects, column (2) adds time fixed effects and column (3) estimates the full model specified with Equation (1) that also has reporting district-specific linear trends. Each model is estimated with least squares with the standard errors clustered by reporting district.

While there is no effect of low priority laws on felony marijuana arrests in Table 4, in Table 3, the likelihood of a misdemeanor marijuana arrest is significantly lower in reporting districts with low priority laws once reporting district fixed effects are included. Similar to the unconditional estimates in Table 2, the rate of misdemeanor marijuana arrests is higher after the low priority initiative passed in all reporting districts. Our coefficient of interest is found in the row labeled LPL*Post. The coefficient is negative and statistically significant in columns (1)-(3). The coefficient in column (3) is -0.0072, which is a large reduction in the rate of misdemeanor marijuana arrests relative to the baseline of 0.0009 for reporting districts with low priority laws found in Table 1.

Figures 1 and 2 hint that any reduction in the likelihood of misdemeanor marijuana arrest from a difference-in-differences estimate would come from a relatively higher rate of arrest in reporting districts that were not subjected to the low priority initiative after it was passed, not through an absolute reduction in misdemeanor marijuana arrests in reporting districts in West Hollywood. The arrest rate clearly spikes higher in Figure 2 after the initiative passed in reporting districts not subjected to the initiative.

This finding relates to a growing literature regarding behavior in general within the criminal justice system. While policy makers may write laws following their

preferences and/or the preferences of their constituents, at the end of the day it is up to those parties within the criminal justice system to either enforce these laws appropriately or not. For example, while sentencing guidelines may be enacted, it is up to the judges to follow these policies (see Tonry (2008) for a discussion of the behavior and enforcement of these policies). Therefore, the spike in arrests in those jurisdictions that did not enact a low priority law suggests that police are adjusting their behavior by arresting more in areas without the policy, possibly as a subtle form of protest against a policy they do not like. Alternatively, the passage of the low priority initiative in West Hollywood may have reminded police of this offense for which they can arrest individuals, and through these arrests generate revenue through fines. This argument would suggest that police may be adjusting their behavior to generate revenue, consistent with research regarding traffic citations (Makowsky and Stratmann, 2009; 2011).

The source of identification for our difference-in-differences estimate can easily be seen by plotting the residuals of the models that account for the unobserved heterogeneity but do not include variables for the low priority law, the post-adoption indicator, or the interaction. Figures 3-5 plot the residuals by month for the models estimated from columns (1)-(3) of Table 3 where LPL, Post, and LPL*Post are excluded. The dashed line is the average residual and the solid lines are the 95% confidence interval bands. Residuals pertaining to low priority reporting districts are plotted in blue and residuals pertaining to the other reporting districts are plotted in black. The vertical line identifies the month in which the low priority initiative took effect.

Figure 3 shows the residuals when only reporting district fixed effects are included, Figure 4 shows the residuals after adding time fixed effects, and Figure 5 shows

the residuals after also including linear trends. Much of the variation in Figures 1 and 2 remains in Figure 3 when only reporting district fixed effects are included in the model. Including time effects and reporting district-specific linear trends in Figures 4 and 5 wipes out some of the variation, but there is still enough variation to identify a relatively higher arrest rate in non-adopting jurisdictions. This confirms that the apparent reduction in misdemeanor marijuana arrest rates due to the low priority law is driven by a large increase in the arrest rates in other reporting districts after the law took place.

Low Priority Laws and Race

Tables 5 and 6 estimate variations of the specification to include indicators for the race of the suspect in Equation (2) and have a similar structure to Tables 3 and 4. The columns of the tables increasingly add additional components to control for possible unobserved heterogeneity, with column (3) estimating the specification as written in Equation (2). The dependent variable in Table 5 is an indicator (=1) if the arrest was for a misdemeanor marijuana possession offense and the dependent variable in Table 6 is an indicator (=1) if the arrest was for felony marijuana possession. The test for racial differences in the implementation of the initiative can be seen by inspecting the coefficients in the row for LPL*Post*Nonwhite.

There appears to be no statistically significant evidence that the LASD differentially implemented the law for white individuals versus nonwhite individuals. The coefficient on LPL*Post*Nonwhite is sometimes positive and sometimes negative, but never statistically different from zero. The estimates do suggest, however, that a larger

fraction of misdemeanor marijuana arrests in West Hollywood are nonwhite individuals in all time periods (positive coefficient on LPL*Nonwhite) and that the misdemeanor marijuana arrest rate declined for nonwhites across all reporting districts after the initiative passed (negative coefficient on Post*Nonwhite).

As we saw in the summary statistics, the race identifier for arrested suspects is missing for a large number of observations. Our results in Tables 5 and 6 would be biased if the race identifier is not missing at random and the LASD systematically did not report the race of certain suspects during marijuana arrests (i.e. do not report race for black individuals only). To investigate this issue, we return to our main specification in Equation (1) and estimate that model on two subsamples of the data – the subsample where race is missing and again on the subsample where race is non-missing. The estimates are presented in Table 7.

Columns (1) and (3) of Table 7 estimate Equation (1) on the sample of data where race is missing and columns (2) and (4) estimate Equation (1) on the sample of data where race is non-missing. The dependent variable is a binary indicator for misdemeanor marijuana arrest in columns (1) and (2) and the dependent variable is a binary indicator for felony marijuana arrest in columns (3) and (4). As in Table 3, the coefficient on LPL*Post is negative and statistically significant but is substantially more negative on the sample of data where race is non-missing. This suggests that the implementation of the low priority law was "more successful" when the LASD recorded the perpetrator's race. We interpret these findings as evidence the LASD did not try to hide any racial bias in differentially implementing the law by not recording the individual's race.

Additionally, notice that the coefficient on Post is negative in column (1) of Table 7 (where race is missing) just as it was in the full specification of Table 3 (using the full sample), but the coefficient on Post is positive in column (2) of Table 7 (where race is non-missing). This shows that misdemeanor marijuana arrests were more frequent in the post period after the law took effect when race was actually recorded. Therefore, perhaps the LASD was more careful in recording race when arresting individuals for misdemeanor marijuana violations once they were under the scrutiny of the new law. Lastly, and similar to Table 4, the coefficient on LPL*Post is not statistically different from zero in columns (3) and (4) of Table 7 where the dependent variable is an indicator for felony marijuana arrest.

VI. **Conclusions**

We utilize novel data pertaining to the universe of arrest records from the Los Angeles Sheriff's Department between January 2000 and December 2007 to investigate the adoption of a low priority initiative by West Hollywood, California in June 2006. The adoption of the low priority initiative mandated the LA Sheriff's Department, West Hollywood's primary policing agency, to de-emphasize the enforcement of misdemeanor marijuana possession crimes. The mandate impacted 22 of the 943 reporting districts for which the LA Sheriff's Department has jurisdiction and made arrests in our data.

We estimate the impact of the low priority initiative on the likelihood of arrest for misdemeanor and felony marijuana possession, separately, using a difference-in-differences framework in a panel data setting that absorbs a large amount of unobserved heterogeneity. While we find no effect of the initiative on felony marijuana arrests, we

find relatively large declines in the rate in which arrests are made for misdemeanor marijuana possession in reporting districts that were subjected to the mandate. However, the negative effects of the low priority initiative on misdemeanor marijuana possession are not due to an absolute drop in the arrest rate in West Hollywood, but instead reflect a large increase in the arrests rate for misdemeanor possession in reporting districts not affected by the initiative. That is, the rate at which the LA Sheriff's Department arrested individuals for marijuana possession outside of West Hollywood increased dramatically after the initiative was passed but officers did not increase (or decrease) the arrest rate of individuals as much in reporting districts within West Hollywood. In one regard the initiative has failed, as the arrest rate for marijuana possession increased in areas other than West Hollywood after the law passed but it succeeded in the sense that the LA Sheriff's Department did not enforce the laws with the same increased intensity within West Hollywood.

For a large fraction of the arrest records, we also have a race identifier that allows us to test whether or not the initiative was differentially implemented. While we find no statistically significant evidence that the low priority law was differentially implemented the law across race, we do find that a larger fraction of misdemeanor marijuana arrests in West Hollywood are nonwhite and that the misdemeanor marijuana arrest rate declined for nonwhites across all reporting districts after the initiative passed. We provide some evidence that these findings are not driven by the LA Sheriff's Department trying to hide any racial bias in differentially implementing the law by not recording the individual's race.

Our results have several important implications for the study of police behavior and the adoption of policy related to law enforcement. First, our finding that the adoption of a low priority initiative in West Hollywood caused police to increase arrests in other areas raises several important questions and implications regarding police behavior. One explanation for this increase is that the LASD did not agree with the initiative passed by West Hollywood, and reacted by arresting more individuals in other jurisdictions. Alternatively, it could be that these laws were already the lowest priority of the LASD, so much so that they were not even thinking to arrest for minor marijuana offenses. Therefore, the adoption of the low priority mandate by West Hollywood reminded police officers to arrest for this activity, and they did so in other jurisdictions. This may be especially true if once the initiative was passed, the LASD viewed arresting individuals for more minor marijuana offenses as another source of revenue when the recession began.

In addition, our findings have important implications for the enforcement of "soft" laws or informal agreements (Lazzarini et al., 2004; Gill and Marion, 2013). While the West Hollywood City Council may have voted to make these minor marijuana possession offenses the lowest priority, the LASD does not report to the West Hollywood City Council. Therefore, the initiative can be seen almost as an indicator of preferences of the local jurisdiction, with no formal mechanism through which the City Council can hold the LASD accountable. Despite this, the LASD followed the instructions of the West Hollywood City Council and did not increase arrests for minor marijuana possession offenses in West Hollywood like they did in other jurisdictions.

References

Alexander, M., 2011. The New Jim Crow Laws. Ohio State Journal of Criminal Law 9(7): 7-26.

Baicker, K, and M. Jacobson, 2007. Finders Keepers: Forfeiture Laws, Policing Incentives, and Local Budgets. *Journal of Public Economics* 91 (11-12) (12): 2113-36.

Becker, G.S., 1968. Crime and punishment: An economic approach. *The Journal of Political Economy,* 76(2): 169-217.

Benson, B.L., I. Kim, and D.W. Rasmussen, 1994. Estimating deterrence effects: A public choice perspective on the economics of crime literature. *Southern Economic Journal,* 61(1): 161-168.

Benson, B.L., I. Kim, D.W. Rasmussen, and T.W. Zuehlke, 1992. Is Property Crime Caused by Drug Use or by Drug Enforcement Policy? *Applied Economics,* 24 (7): 679.

Benson, B.L., and D.W. Rasmussen, 1991. Relationship between illicit drug enforcement policy and property crimes. *Contemporary Economic Policy,* 9(4): 106-15.

Benson, B.L., D.W. Rasmussen, and I. Kim. 1998, Deterrence and public policy: Trade-offs in the allocation of police resources. *International Review of Law and Economics,* 18(1): 77-100.

Benson, B.L., D.W. Rasmussen, and D.L. Sollars, 1995. Police Bureaucracies, Their Incentives, and the War on Drugs. *Public Choice,* 83(1-2): 21-45.

Borooah, V. K., 2001. Racial Bias in Police Stops and Searches: An Economic Analysis. *European Journal of Political Economy,* 17(1): 17-37.

Blumenson, E. and E. Nilsen, 1998. Policing for Profit: The Drug War's Hidden Economic Agenda. *University of Chicago Law Review,* 65(1): 35-114.

Brumm, H. J. and D. O. Cloninger, 1995. The Drug Ware and the Homicide Rate: A Direct Correlation? *Cato Journal,* 14(3): 509-608.

Caulkins, J. P., P. Reuter, M. Y. Iguchi, and J. Chiesa, 2005. How Goes the "War on Drugs:? Santa Monica, CA: RAND Drug Policy Research Center.

DeAngelo, Gregory, and Benjamin Hansen, 2014. Life and Death in the Fast Lane: Police Enforcement and Traffic Fatalities." *American Economic Journal: Economic Policy* 6(2): 231-257.

DeAngelo, Gregory, and Bryan C. McCannon, 2015. Public Outcry and Police Behavior. Forthcoming at *The BE Journal of Economic Analysis & Policy*.

DeAngelo, G. and Emily Owens, 2015. Learning the Ropes: General Experience, Task-Specific Experience, and the Output of Police Officers. *Working Paper.*

Dobkins, C. and N. Nicosia, 2009. The War on Drugs: Methamphetamine, Public Health, and Crime. *The American Economic Review*, 99(1): 324-349.

Eeckhout, J., N. Persico, and P. Todd, 2010. A Theory of Optimal Random Crackdowns. *The American Economic Review*, 100(3): 1104-35.

Gil, Ricard, and Justin Marion (2012). "Self-enforcing agreements and relational contracting: evidence from California highway procurement." *Journal of Law, Economics, and Organization*.

Grogger, J. and G. Ridgeway, 2006. Testing for racial profiling in traffic stops from behind a veil of darkness. *Journal of the American Statistical Association* 101(475): 878-887.

Horrace, W. C. and S. Rohlin, 2015. How Dark is Dark? Bright Lights, Big City, Racial Profiling. Forthcoming at *Review of Economics and Statistics.*

Leaver, Clare, 2009. Bureaucratic Minimal Squawk Behavior: Theory and Evidence from Regulatory Agencies. *American Economic Review* 99(3): 572-607.

Lazzarini, Sergio G., Gary J. Miller, and Todd R. Zenger, 2004. "Order with some law: complementarity versus substitution of formal and informal arrangements." *Journal of Law, Economics, and Organization* 20(2): 261-298.

Ludwig, Jens, Helen F. Ladd and Greg J. Duncan, 2001. “Urban Poverty and Educational Outcomes.” Brookings-Wharton Papers on Urban Affairs. Edited by William Gale and Janet Rothenberg Pack. Washington, DC: Brookings Institution. pp. 147-201.

Lum, Cynthia and Daniel S. Nagin, 2015. Reinventing American Policing. *The Crime Report*.

MacDonald, J.M., R.J. Stokes, G. Ridgeway, and K.J. Riley, 2007. Race, Neighborhood context, and perceptions of injustice by the police. *Urban Studies* 44(13): 2567-2585.

Makowsky, Michael D., and Thomas Stratmann, 2009. Political Economy at Any Speed: What Determines Traffic Citations? *The American Economic Review*, 99(1): 509-527.

Makowsky, Michael D., and Thomas Stratmann, 2011. More Tickets, Fewer Accidents: How Cash-Strapped Towns Make for Safer Roads." *Journal of Law and Economics* 54(4): 863-888.

Mast, B.D., B.L. Benson, and D.W. Rasmussen, 2000. Entrepreneurial Police and Drug Enforcement Policy. *Public Choice*, 104(3-4): 285-308.

Miron, J., 2003. The Effect of Drug Prohibition on Drug Prices: Evidence from the Markets for Cocaine and Heroin. *Review of Economics and Statistics*, 85(3): 522-30.

Persico, N., 2009. Racial Profiling? Detecting Bias Using Statistical Evidence. *Annual Review of Economics*, 1: 229-54.

Persico, N. and P. Todd, 2008. The Hit Rates Test for Racial Bias in Motor-Vehicle Searches. *Justice Quarterly*, 25(1): 37-53.

Persico, N. and P. Todd, 2008. Generalizing the Hit Rates Test for Racial Bias in Law Enforcement, with an Application to Vehicle Searches in Wichita. *The Economic Journal*, 116: F351-367.

Rasmussen, D. W., B. L. Benson and D. L. Sollars, 1993. Spatial Competition in Illicit Drug Markets: The Consequences of Increased Drug Law Enforcement. *The Review of Regional Studies*, 23(3), 219-236.

Ridgeway, G. and J. M. MacDonald, 2009. Doubly Robust Internal Benchmarking and False Discovery Rates for Detecting Racial Bias in Police Stops. *Journal of the American Statistical Association* 104(486): 661-668.

Ross, A. and A. Walker, 2015. The Impact of Low Priority Laws on Criminal Activity: Evidence from California. *Working Paper*.

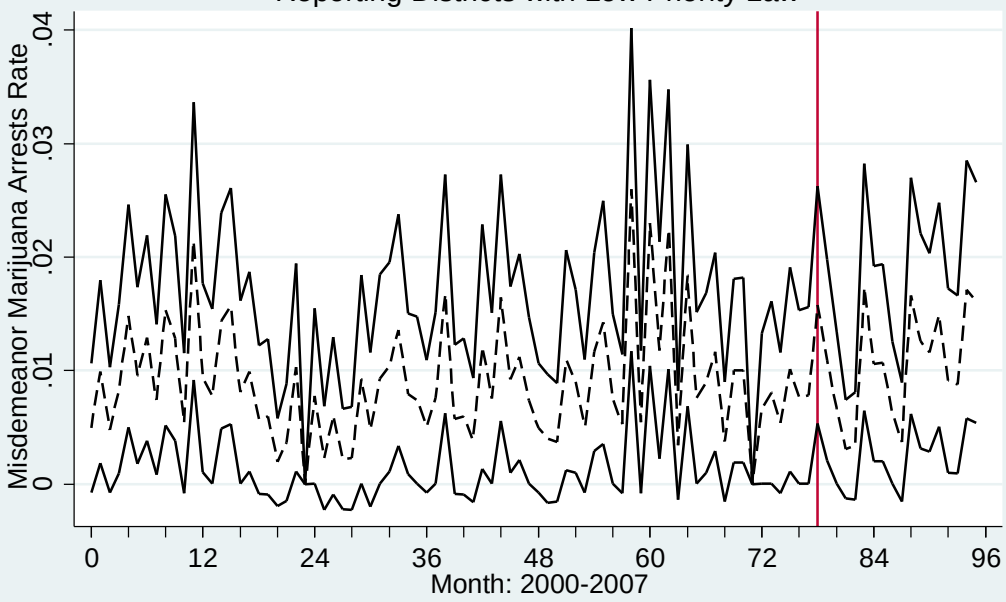
Sollars, D.L., B.L. Benson, and D.W. Rasmussen, 1994. Drug enforcement and the deterrence of property crime among local jurisdictions. *Public Finance Quarterly*, 22(1): 22-45.

Tonry, M., 1994. Racial Politics, Racial Disparities, and the War on Crime. *Crime & Delinquency*, 40(4): 475-494.

Tonry, M., 1996. Sentencing Matters. Oxford, England: Oxford University Press.

Figure 1

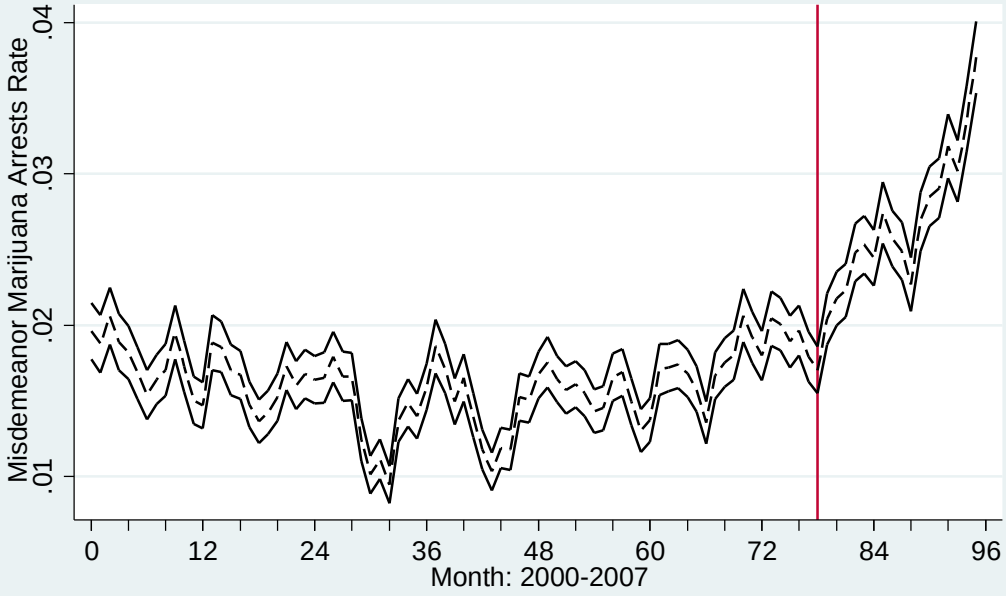
Reporting Districts with Low Priority Law



Note: Dashed line is average arrest rate. Solid lines are 95% confidence bands.

Figure 2

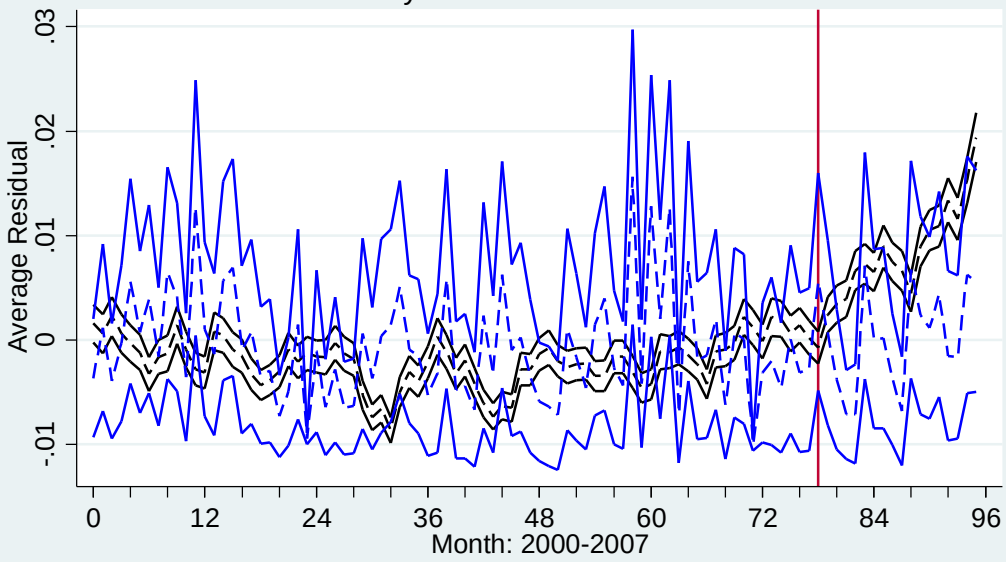
Reporting Districts with No Low Priority Law



Note: Dashed line is average arrest rate. Solid lines are 95% confidence bands.

Figure 3

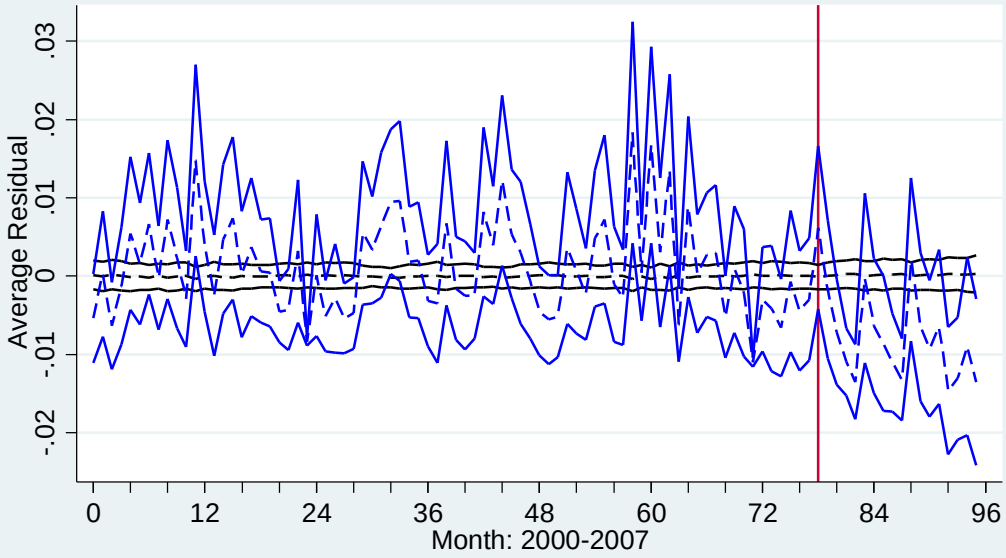
Residuals After Removing Reporting District Fixed Effects
Low Priority RD in Blue Other RD in Black



Note: Dashed line is average residual. Solid lines are 95% confidence bands.

Figure 4

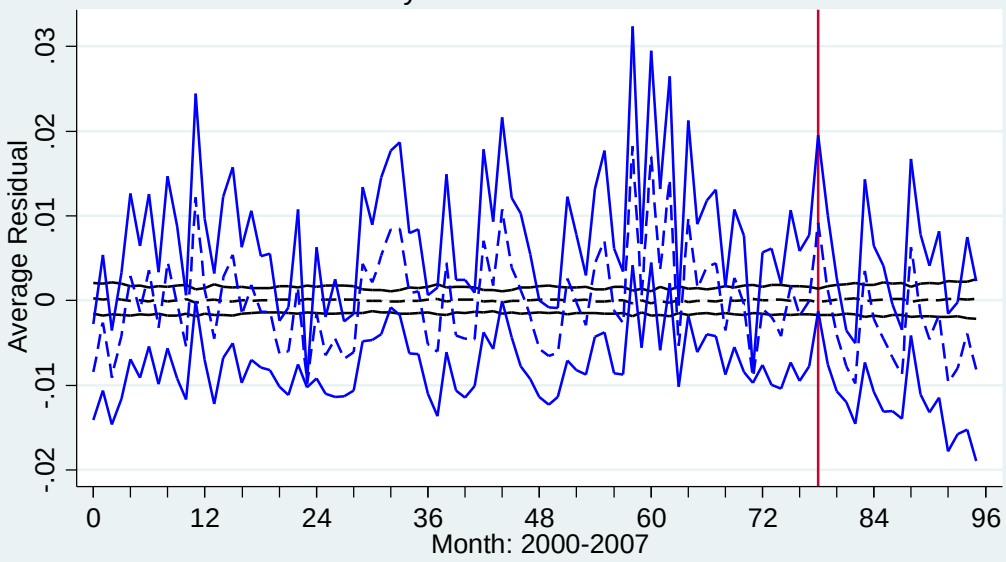
Residuals After Removing Reporting District and Time FE
Low Priority RD in Blue Other RD in Black



Note: Dashed line is average residual. Solid lines are 95% confidence bands.

Figure 5

Residuals After Removing RD & Time FE & Linear Trends
Low Priority RD in Blue Other RD in Black



Note: Dashed line is average residual. Solid lines are 95% confidence bands.

Table 1: Summary Statistics

Panel A

	Full Sample	Low Priority Law = 1	Low Priority Law = 0
Nonwhite	0.789	0.469	0.797
	(0.408)	(0.499)	(0.402)
Low Priority Law	0.021	--	--
	(0.142)		
Misdemeanor Marijuana	0.018	0.009	0.018
	(0.133)	(0.096)	(0.133)
Felony Marijuana	0.003	0.001	0.003
	(0.052)	(0.038)	(0.052)
Observations	2544305	52672	2491633

Panel B

	Nonwhite = 1	Nonwhite = 0
Misdemeanor Marijuana	0.050	0.051
	(0.218)	(0.220)
Felony Marijuana	0.008	0.006
	(0.088)	(0.077)
Observations	572991	152934

Note: Entries are the sample mean with standard deviation in parentheses. There are 725925 non-missing entries for the race identifier.

Table 2: Unconditional Differences in Marijuana Arrests

Panel A

		LPL = 0		LPL = 1	
	Full Sample	Pre-treatment	Post-Treatment	Pre-treatment	Post-Treatment
Misdemeanor Marijuana	0.0180 (0.1328)	0.016 (0.126)	0.026 (0.160)	0.009 (0.095)	0.011 (0.103)
		Difference = 0.010*** [0.0002]		Difference = 0.002 [0.0011]	
		Difference-in-Difference = -0.009*** [0.002]			

Panel B

		LPL = 0		LPL = 1	
	Full Sample	Pre-treatment	Post-Treatment	Pre-treatment	Post-Treatment
Felony Marijuana	0.0027 (0.0516)	0.0025 (0.050)	0.0033 (0.058)	0.001 (0.037)	0.002 (0.042)
		Difference = 0.0009*** [0.00009]		Difference = 0.0004 [0.0004]	
		Difference-in-Difference = -0.0005 [0.0006]			

Note: LPL stands for Low Priority Law. Entries in the table reflect the proportion of misdemeanor and felony marijuana arrests for all arrests made by the Los Angeles County Sherriff's Department for the full sample period 2000-2007. Standard deviations are in parentheses. Standard errors are in brackets for the t-tests for the difference in means equal to zero and assuming unequal variances. For the full sample N=2,544,305. ***indicates p-value < 0.01.

Table 3: The Effect of Low Priority Law on Misdemeanor Marijuana Arrests

	(1)	(2)	(3)
Low Priority Law	-0.0028	-0.0035*	-0.0036*
	(0.0021)	(0.0021)	(0.0020)
Post	0.0103***	0.0180***	-0.0033*
	(0.0007)	(0.0021)	(0.0020)
LPL*Post	-0.0093***	-0.0091***	-0.0072***
	(0.0021)	(0.0021)	(0.0018)
Constant	0.0160***	0.0194***	0.0192***
	(0.0001)	(0.0012)	(0.0011)
Reporting District FE	Yes	Yes	Yes
Period FE	No	Yes	Yes
RD-specific linear time trends	No	No	Yes
R^2	0.011	0.011	0.013
Observations	2544305	2544305	2544305

Note: The dependent variable is a binary indicator for a misdemeanor marijuana arrest. Models are estimated by least squares with errors clustered by reporting district. Clustered standard errors are in parentheses. LPL=1 if the reporting district is subject to the Low Priority Law. Post=1 after the law took effect. FE stands for fixed effects and RD stands for reporting district. * p<0.1, ** p<0.05, *** p<0.01

Table 4: The Effect of Low Priority Laws on Felony Marijuana Arrests

	(1)	(2)	(3)
Low Priority Law	0.0003	0.0003	0.0003
	(0.0006)	(0.0006)	(0.0006)
Post	0.0009***	0.0018***	0.0006
	(0.0001)	(0.0005)	(0.0006)
LPL*Post	-0.0006	-0.0006	-0.0008
	(0.0004)	(0.0004)	(0.0005)
Constant	0.0025***	0.0022***	0.0021***
	(0.0000)	(0.0003)	(0.0003)
Reporting District FE	Yes	Yes	Yes
Period FE	No	Yes	Yes
RD-specific linear time trends	No	No	Yes
R^2	0.004	0.004	0.004
Observations	2544305	2544305	2544305

Note: The dependent variable is a binary indicator for a felony marijuana arrest. Models are estimated by least squares with errors clustered by reporting district. Clustered standard errors are in parentheses. LPL=1 if the reporting district is subject to the Low Priority Law. Post=1 after the law took effect. FE stands for fixed effects and RD stands for reporting district. * p<0.1, ** p<0.05, *** p<0.01

Table 5: The Effect of Low Priority Law on Misdemeanor Marijuana Arrests by Race

	(1)	(2)	(3)
Low Priority Law	-0.0138**	-0.0131**	-0.0154***
	(0.0055)	(0.0055)	(0.0052)
Post	0.0340***	0.0907***	0.0946***
	(0.0027)	(0.0061)	(0.0064)
LPL*Post	-0.0302***	-0.0297***	-0.0116**
	(0.0063)	(0.0064)	(0.0049)
Nonwhite	0.0006	0.0001	-0.0001
	(0.0013)	(0.0013)	(0.0013)
LPL*Nonwhite	0.0107**	0.0108**	0.0113**
	(0.0046)	(0.0046)	(0.0045)
Post*Nonwhite	-0.0082***	-0.0081***	-0.0061***
	(0.0025)	(0.0025)	(0.0023)
LPL*Post*Nonwhite	0.0012	0.0013	-0.0013
	(0.0074)	(0.0074)	(0.0072)
Constant	0.0435***	0.0139***	0.0129***
	(0.0012)	(0.0032)	(0.0029)
Reporting District FE	Yes	Yes	Yes
Period FE	No	Yes	Yes
RD-specific linear time trends	No	No	Yes
R^2	0.019	0.022	0.026
Observations	725925	725925	725925

Note: The dependent variable is a binary indicator for a misdemeanor marijuana arrest. Models are estimated by least squares with errors clustered by reporting district. Clustered standard errors are in parentheses. LPL=1 if the reporting district is subject to the Low Priority Law. Post=1 after the law took effect. FE stands for fixed effects and RD stands for reporting district. * p<0.1, ** p<0.05, *** p<0.01

Table 6: The Effect of Low Priority Laws on Felony Marijuana Arrests by Race

	(1)	(2)	(3)
Low Priority Law	0.0004	0.0007	0.0006
	(0.0019)	(0.0019)	(0.0019)
Post	0.0028***	0.0079***	0.0055***
	(0.0006)	(0.0015)	(0.0019)
LPL*Post	-0.0014	-0.0013	-0.0008
	(0.0022)	(0.0022)	(0.0026)
Nonwhite	0.0000	-0.0000	0.0001
	(0.0003)	(0.0003)	(0.0003)
LPL*NW	0.0008	0.0009	0.0008
	(0.0015)	(0.0015)	(0.0015)
Post*NW	-0.0005	-0.0005	-0.0007
	(0.0007)	(0.0007)	(0.0007)
LPL*Post*NW	-0.0028	-0.0029	-0.0026
	(0.0032)	(0.0032)	(0.0032)
Constant	0.0069***	0.0026***	0.0024***
	(0.0003)	(0.0007)	(0.0007)
Reporting District FE	Yes	Yes	Yes
Period FE	No	Yes	Yes
RD-specific linear time trends	No	No	Yes
R^2	0.006	0.006	0.007
Observations	725925	725925	725925

Note: The dependent variable is a binary indicator for a felony marijuana arrest. Models are estimated by least squares with errors clustered by reporting district. Clustered standard errors are in parentheses. LPL=1 if the reporting district is subject to the Low Priority Law. Post=1 after the law took effect. NW stands for Nonwhite, FE for fixed effects and RD for reporting district. * p<0.1, ** p<0.05, *** p<0.01

Table 7: The Effect of Low Priority Laws: Race Identifier Missing vs Non-missing

	(1)	(2)	(3)	(4)
	Misdemeanor Marijuana Arrest		Felony Marijuana Arrest	
	Race Missing	Race Non-missing	Race Missing	Race Non-missing
Low Priority Law	-0.0011	-0.0101**	-0.0002	0.0010
	(0.0009)	(0.0045)	(0.0002)	(0.0017)
Post	-0.0400***	0.0900***	-0.0010**	0.0047**
	(0.0014)	(0.0058)	(0.0004)	(0.0019)
LPL*Post	-0.0057***	-0.0100***	-0.0004	-0.0019
	(0.0013)	(0.0038)	(0.0003)	(0.0014)
Constant	0.0191***	0.0129***	0.0020***	0.0024***
	(0.0012)	(0.0029)	(0.0004)	(0.0007)
Reporting District FE	Yes	Yes	Yes	Yes
Period FE	Yes	Yes	Yes	Yes
RD-specific linear time trends	Yes	Yes	Yes	Yes
R^2	0.015	0.026	0.005	0.007
Observations	1818380	725925	1818380	725925

Note: The dependent variable is a binary indicator for a misdemeanor marijuana arrest in columns (1) and (2). The dependent variable is a binary indicator for a felony marijuana arrest in columns (3) and (4). Columns (1) and (3) estimate the models on the sample of data where the race identifier is missing. Columns (2) and (4) estimate the models on the sample of data where the race identifier is non-missing. Models are estimated by least squares with errors clustered by reporting district. Clustered standard errors are in parentheses. LPL=1 if the reporting district is subject to the Low Priority Law. Post=1 after the law took effect. FE stands for fixed effects and RD stands for reporting district. * p<0.1, ** p<0.05, *** p<0.01